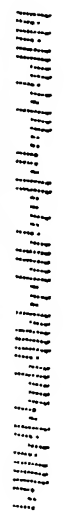


T00000

3H



Alexandria, VA 22313-1450

If Undeliverable Return in Ten Days

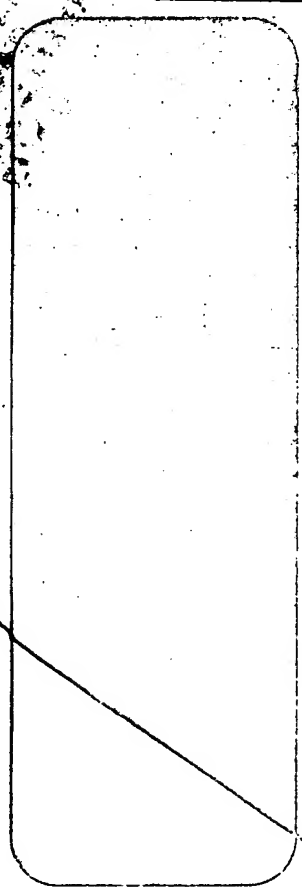


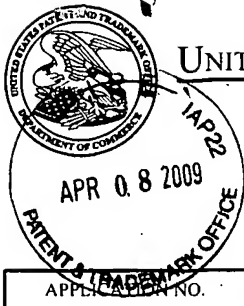
02 1M  
0004244939 APR 02 2009  
\$01.34<sup>0</sup>  
MAILED FROM ZIP CODE 22314

**AN EQUAL OPPORTUNITY EMPLOYER**

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

RECEIVED  
APR 08 2009  
USPTO MAIL CENTER





# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,906	06/28/2006	Andreas Ziegler	ATM-2412	5034

7590  
Fisher Christen & Sabol  
1725 K Street NW  
Suite 1108  
Washington, DC 20006

04/02/2009

EXAMINER
----------

NORRIS, JEREMY C

ART UNIT	PAPER NUMBER
----------	--------------

2841

MAIL DATE	DELIVERY MODE
-----------	---------------

04/02/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/584,906	Applicant(s) ZIEGLER ET AL.	
	Examiner Jeremy C. Norris	Art Unit 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 12-15 and 17 is/are rejected.
- 7) ☒ Claim(s) 5-11, 16 and 18-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

The drawings were received on 12 February 2008. These drawings are acceptable.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by US 2003/0116343 A1 (Adachi).

Adachi discloses, referring primarily to figure a flexible substrate with a base layer (17) of plastic and at least one electrically conductive structure (13-1) printed with electrically conductive ink on one side of the base layer, the at least one electrically conductive structure between the base layer and at least one top layer (15) of plastic and each of the possible further electrically conductive structures (12-1) is situated between each of the two further top layers, and the base layer joined to the at least one top layer and each of the possible further top layers with neighboring top layers [claim 1], wherein the at least one top layer exhibits at least one further electrically conductive

Art Unit: 2841

structure (12-2) printed with electrically conductive ink on the at least one top layer, and an electrically insulating intermediate layer (11) of plastic is provided between each of the electrically conductive structures (13-1, 12-2) [claim 2] wherein the at least one top layer (14) is formed by the at least one further electrically conductive structure of the base layer with the electrically conductive structure folded at least once over itself ([0006]) [claim 3] wherein the substrate is rolled up [claim 4], wherein the substrate is rolled up (col. 12, lines 20-30) [claim 15], wherein the at least one electrically conductive structure comprises structure parts that are printed one over the other and each printed structure is set back from the edge of the underlying printed structure forming a step [claim 17].

Claims 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,294,111 B1 (Shacklett).

Shacklett discloses, referring primarily to figure 1, a process for continuous printing electrically conductive structures (14) with an electrically conductive ink on a flexible substrate (12) of plastic (col. 8, lines 50-55), characterized in that wherein the substrate is printed using the gravure printing method, intaglio or rotogravure (col. 5, lines 15-25) [claim 12], wherein the electrically conductive structures are printed a number of times on top of each other a number of times in order to increase the electrical conductivity (col. 7, lines 1-5) [claim 13], wherein the edge of each printed structure is set back from the edge of the underlying printed structure thus forming a step [claim 14].

***Allowable Subject Matter***

Claims 5-11, 16, and 18-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claim 5 states the limitation "wherein the electrically conductive structures are conductive strips that cross each other many times". This limitation, in conjunction with the other claimed features, was neither found to be disclosed in, nor suggested by, the prior art. Claim 16 states the limitation "wherein the electrically conductive structures are conductive strips that cross each other many times". This limitation, in conjunction with the other claimed features, was neither found to be disclosed in, nor suggested by, the prior art. Claim 18 states the limitation "wherein the base layer and the at least one top layer or in the case of further top layers, at least the top layer furthest removed from the base layer each exhibits a barrier layer as barrier against penetration of water vapor. This limitation, in conjunction with the other claimed features, was neither found to be disclosed in, nor suggested by, the prior art.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy C. Norris whose telephone number is (571)272-1932. The examiner can normally be reached on Monday - Thursday, 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A. Reichard can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy C. Norris  
Primary Examiner  
Art Unit 2841

/Jeremy C. Norris/  
Primary Examiner, Art Unit 2841

<b>Notice of References Cited</b>	Application/Control No. 10/584,906	Applicant(s)/Patent Under Reexamination ZIEGLER ET AL.	
	Examiner Jeremy C. Norris	Art Unit 2841	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,737,589	05-2004	Adachi et al.	174/254
*	B	US-6,294,111	09-2001	Shacklett et al.	252/518.1
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

10/584906  
IAP11 Rec'd PCT/PTO 28 JUN 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Docket: ATM-2412

Applicant : Ziegler, Andreas, et al.  
Serial No. : Unknown (371 based on PCT/EP2004/014390  
filed on December 17, 2004)  
Filed : June 28, 2006  
Title : FLEXIBLE CARRIER WITH AN ELECTRICALLY CONDUCTING  
STRUCTURE

**ART STATEMENT**

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Enclosed is a copy of European Published Patent Application No.

0129785 B, that is discussed on page 1 of this application.

A copy of the International Search Report from applicants' corresponding  
International patent application is enclosed.

Enclosed is a copy of U.S. Patent No. 4,659,872 (Dery et al.). The  
International Search Report cited Dery et al. as being particularly relevant by  
itself (Category X) as regards Claims 1 and 2 of applicants' corresponding  
International patent application. The International Search Report cited Dery et al.  
as being technological background (Category A) as regards Claims 3 to 6, 12  
and 13 of applicants' corresponding International patent application. The  
International Search Report cited column 3, line 45, to column 4, line 59, column  
5, lines 21 to 45, column 6, line 34, to column 7, line 9, column 7, lines 10 to 36,

Claims 1, 2, 15 and 24, and Figures 2 to 8 and 16 to 20 of Dery et al. as being relevant.

Enclosed is a copy of U.S. Patent No. 5,238,006 (Markowitz et al.). The International Search Report cited Markowitz et al. as being particularly relevant by itself (Category X) as regards Claims 1, 12 and 13 of applicants' corresponding International patent application. The International Search Report cited Markowitz et al. as being technological background (Category A) as regards Claims 2 and 3 of applicants' corresponding International patent application.

Enclosed is a copy of French Published Patent Application No. 2,530,874 (French '874). The International Search Report cited French '874 as being particularly relevant by itself (Category X) as regards Claims 1, 12 and 13 of applicants' corresponding International patent application. The International Search Report French '874 as being technical background (Category A) as regards Claims 2 to 4, 7, 9 and 10 of applicants' corresponding International patent application. The International Search Report cited page 5, line 23, to page 9, line 7, page 13, line 1, to page 15, line 23, Claims 1, 3 and 7 to 9, and Figures 1, 2, 4 and 5 of French '874 as being relevant.

Enclosed is a copy of U.S. Patent No. 5,262,590 (Lia). The International Search Report cited Lia as being particularly relevant by itself (Category X) as regards Claims 1 to 3, 5, 12 and 13 of applicants' corresponding International patent application. The International Search Report cited Lia as being particularly relevant when combined with another reference in the same category (Category Y) as regards Claim 4, 6 to 11 and 14 of applicants' corresponding

International patent application. The International Search Report cited column 2, line 30, to column 3, line 12, column 4, line 18, to column, line 13, Claims 1, 2, 6 and 10, and Figures 1 to 6 of Lia as being relevant.

Enclosed is a copy of U.S. Patent No. 5,053,583 (Miller et al.). The International Search Report cited Miller et al. as being particularly relevant when combine with another reference in the same category (Category Y), cited column 2, line 53, to column 3, line 12, column 4, lines 11 to 55, Claims 1 to 9, and Figures 2A and 2B of Miller et al. as being relevant, and cited Miller et al. as being relevant to Claim 4 of applicants' corresponding International patent application.

Enclosed is a copy of Patent Abstracts of Japan, Vol. 1995, No. 07, Aug. 31, 1995, (Japanese Abstract), that abstracts Japanese Published Patent Application No. 07/106757. The International Search Report cited Japanese Abstract as being particularly relevant when combined with another reference in the same category (Category Y), cited all of Japanese Abstract as being relevant, and cited Japanese Abstract as being relevant to Claims 6 and 14 of applicants' corresponding International patent application.

Enclosed is a copy of U.S. Patent No. 3,206,541 (Jachimowicz). The International Search Report cited Jachimowicz as being particularly relevant when combined with another reference in the same category (Category Y), cited column 1, line 71, to column 2, line 22, column 2, line 69, to column 3, line 16, column 3, line 65, to column 4, line 5, Claims 1 and 2, and Figures 1 and 5 of

Jachimowicz as being relevant, and cited Jachimowicz as being relevant to Claims 7 to 11 of applicants' corresponding International patent application.

Enclosed is a copy of U.S. Published Patent Application No. 2001/006252 (Kim et al.). The International Search Report cited Kim et al. as being technological background (Category A), cited paragraphs 0008 to 0011, 0051 to 0053 and 0057 to 0059, and Figures 1 to 3, 5 and 10 to 15 of Kim et al. as being relevant, and cited Kim et al. as being relevant to Claims 1 to 4 of applicants' corresponding International patent application.

Enclosed is a copy of U.S. Patent No. 6,225,688, that the International Search Report stated corresponds to Kim et al.

Enclosed is a copy of U.S. Patent No. 6,121,676, that the International Search Report stated corresponds to Kim et al.

Enclosed is a copy of U.S. Published Patent Application No. 2003168725, that the International Search Report stated corresponds to Kim et al.

Enclosed is a copy of German OS 2,327,549 (German '549). The International Search Report cited German '549 as being technological background (Category A), cited all of German '549 as being relevant, and cited German '549 as being relevant to Claims 1 to 5 of applicants' corresponding International patent application.

Enclosed is a copy of U.S. Patent No. 3,761,842, that the International Search Report stated corresponds to German '549.

Enclosed is a copy of U.S. Patent No. 3,060,062 (Katz et al.). The International Search Report cited Katz et al. as being technological background

(Category A), cited column 2, line 56, to column 3, line 6, and Claims 4 and 5 of Katz et al. as being relevant, and cited Katz et al. as being relevant to Claims 1, 6, 12 and 13 of applicants' corresponding International patent application.

A list of the above-mentioned reference is enclosed.

Respectfully submitted,

June 27, 2006  
Date

Virgil H. Marsh  
Virgil H. Marsh  
Reg. No. 23,083

Fisher, Christen & Sabol  
1725 K St., NW  
Suite 1108  
Washington, DC 20006  
Tel.: 202-659-2000  
Fax: 202-659-2015

<b>FORM PTO-1449</b>  <b>INFORMATION DISCLOSURE</b> <b>CITATION</b> (modified)		Atty Docket: <b>ATM-2412</b>		Serial No.: Unknown (Based on PCT/EP2004/014390, filed on December 17, 2004)	
Applicant: <b>Andreas ZIEGLER, et al</b>					
Filing Date: <b>June 28, 2006</b>				Group:	

U.S. PATENT DOCUMENTS							
Examiner Initial	Document Number	Date	Name	Class	Sub-Class	Filing Date	
<div style="font-size: 2em;">↓</div>	4,659,872	04/21/1987	Dery et al.				
	5,238,006	08/24/1993	Markowitz				
	5,262,590	11/16/1993	Lia				
	5,053,583	10/01/1991	Miller et al.				
	3,206,541	09/14/1965	Jachimowicz				
	2001/0006252	07/05/2001	Kim et al.				
	6,225,688	05/01/2001	Kim et al.				
	6,121,676	09/19/2000	Solberg				
	2003/0168725	09/11/2003	Warner et al.				
	3,761,842	09/25/1973	Gandrud				
	3,060,062	10/23/1962	Katz et al.				
FOREIGN PATENT DOCUMENTS							
Examiner Initial	Document Number	Date	Country	Class	Sub-Class	Translation Yes * No	
/JN/	0129785B		EP				
/JN/	2,530,874		France				
/JN/	2,327,549		Germany				
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)							
/JN/	Patent Abstracts of Japan, Vol. 1995, No. 01, Aug. 31, 1995 (abstract of 07/106757)						

Examiner: <b>/Jeremy Norris/</b>	Date Considered: <b>03/28/2009</b>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	